

SECTION III

PART F SPACE UTILIZATION PLANNING CRITERIA

1.00 Facilities Planning Criteria

Space utilization criteria are viewed as guidelines against which program plans for new capital construction, renovation and remodeling plans can be measured. The criteria are intended to be guidelines and do not reflect a standard that if unmet results in automatic denial of a program plan.

The planning criteria recognize the uniqueness of each institution of higher education and are not intended for inter-institutional comparisons but to allow for legitimate differences which recognize each institution's unique role and mission.

Opportunity exists in the facilities program planning process for refinement and justification of deviations from the guidelines. As guidelines, they provide a point of departure for the Commission's evaluation of space requirements, recognizing that space needs of institutions are affected by many variables of program, instructional method, functions to be served, modes of operation, and other factors important to the differences in institutional role and mission.

In evaluating proposals for renovation of existing facilities, the Commission will take into consideration that older buildings may not readily conform to these guidelines, because of original function and/or outdated facilities planning and use criteria applied in the original construction.

2.00 Enrollments

Enrollment figures will be based on specific campus data reported to the department of higher education in regular reporting of full-time equivalent students and program plans should reflect a minimum of 5 years of data.

3.00 Classroom and Classroom Service Space

As a goal, the commission intends institutions to achieve a classroom utilization level of an average of 60 hours use per week filled to 70 percent of capacity. Institutions are encouraged to use existing facilities to this degree.

Annual updates following new construction project or remodeling completion of campus facility use rates. Campus program plans submitted for review should reflect those changes in the annual resubmission.

Plans previously approved but reprioritized by the governing boards and resubmitted should include the updated campus facility utilization data.

Included in this category of space are rooms and auditoriums capable of

accommodating lecture or discussion type classes, seminars, or meetings. Also included is accompanying service space.

The Commission employs an overall guideline for classrooms and related service space which is based on an acceptable level of utilization of rooms and of the seating capacity (student stations) of rooms, and on an assumed average amount of space per student station. The guideline which the Commission uses is 0.75 assignable square feet per student-station-period occupied (student contact hour). A student-station-period is one student seated in a classroom chair for one hour. The guideline assumes an average of 31.5 assignable square feet per student station (including service space).

This guideline is based on a 7-day week and calculated on a 24-hour day.

The above-referenced guideline is used by the Commission for purposes of making general projections of space requirements on a statewide basis. This guideline should not be followed literally in the process of accomplishing detailed institutional master and program planning. Deviations beyond the guideline can be made insofar as specific projects are concerned so long as campus-wide data are available indicating the campus progress toward meeting the facility utilization goal.

Unconventional classrooms, including computer-aided classrooms, designed to accommodate specific teaching modalities, may justify space in addition to the guidelines. The amount of additional space must be based upon an analysis of teaching methods and classroom equipment types and uses and include relevant justification.

4.00 Instructional Laboratory and Related Service Space

Included in this category of space are regularly scheduled laboratories which are organized and equipped for special types of instruction and which are not readily adaptable to general use. Wherever possible, program plans submitted should include multi-use laboratory space. If that is not possible for the particular instruction area, an explanation should be included.

It is expected that instructional laboratories will be used at least an average of 40 hours per week and that they will be filled to at least 80 percent of capacity during the hours they are used.

Use calculations shall be based on contact hours required for instruction according to teaching methods in use. An explanation of the rationale for projecting specific needs should be included in the program plan seeking new lab space or proposing renovation of existing space.

5.00 Physical Education Facilities and Related Service Space

Program plans requesting new space for physical education and/or athletic programs should include an analysis of the condition of existing space for this purpose on campus, a program assessment that includes both intramural and intercollegiate as well as instructional use of the existing and proposed facilities.

6.00 Instructional Faculty Offices and Related Secretarial, Clerical, and Office Service Space

Program plans requesting new or remodeled space for administrative purposes should include information on the administrative space on the campus and to what use the space is dedicated. The program plan data should reflect all current projects under construction or renovation that include administrative space.

Included here are offices for resident instructional faculty, academic deans, instructional department or division heads, secretarial and clerical personnel of instructional departments, and related office service space such as reception rooms, conference rooms, file rooms, and the like.

Workstations should be provided for people who need them based on their function at the institution.

7.00 Other Instructional/RESEARCH Space

Additional space requested should include an analysis of the function of the space and an assessment of whether it should be specific purpose or multi-purpose space.

Research institutions should develop plans for projecting research personnel needs. Such a plan should be developed for the institution as a whole and, together with all criteria employed in its development, be incorporated into the master plan and related program plans.

8.00 Extension and Public Service Office Space

Space proposed for new construction or significant renovation for this purpose should include an assessment within the program plan that indicates the institutional effort to enter into joint-use agreements and/or joint-funding agreements for such space. A specific project justification should reflect an analysis of what other community facilities might be available for campus use for the purpose proposed in the plan and why the alternatives were not selected.

9.00 Administrative and General Office Space

Program plans requesting administrative space for central purposes or campus purposes should show space currently dedicated to this purpose on campus, the age of the relevant space and its condition and provide evidence the institution has examined use of technology to eliminate duplicated administrative/office stations where multiple campuses exist and central functions are or could be consolidated.

10.00 Other Administrative and General Space

This category includes space, other than office and related service space, which is used for administrative purposes. An example would be space to house administrative data processing equipment. No guidelines have been developed for this category of space but the institution would be expected to make appropriate analyses of needs in this area and communicate those analyses via the master plan or facilities program plans.

11.00 Physical Plant Service Space

This category includes maintenance shops, machine shops, motor pools, garages, heating plants, central boiler rooms, police and fire protection facilities, and the like.

Space needs in this category may best be estimated by a general analysis of the requirements of such operations. Program plans proposing construction of new or renovated space for this purpose should reflect current campus conditions and the campus staffing for these services over a 10-year period. The analysis should include a chart indicating when new facilities have come on line and what operational costs and staffing additions resulted from that construction. Plans should reflect projections for the future for increases in operational/service demands that would be reflected in the institutional 5-year capital construction plan.

12.00 Library Space

This category includes space used for library collection storage, student study/reader stations, staff offices, service areas and other library functions such as government document depositories and media services. Separate criteria have been developed for master planning and program planning to reflect appropriate levels of planning detail.

A. Library Space Criteria for Use in Master Planning

At the master planning level, guidelines have been developed for (1) collection size, (2) collection storage, (3) reader-study stations, (4) service space (including staff offices), and (5) specialized library space.

1. Collection Size

The size of the institution's library collection is based upon the size of the existing collection plus the institution's planned acquisitions. The net annual acquisition rate (annual purchases reduced by weeding and deselection) is limited to an amount justifiable by historic trends, unless additional funding commitment is demonstrated by the governing board and the institution.

2. Collection Storage

Utilization criteria for collection storage space are:

- 0.10 ASF per volume for first 300,000 volumes.
- 0.08 ASF per volume for collection over 300,000 volumes.
- 0.025 ASF or as appropriate for compact shelving.

To determine the amount of space necessary for non-book items the following volume equivalents apply:

VOLUME EQUIVALENTS FOR NON-BOOK MATERIALS

Non-Book Materials	Volume Equivalents
Microfile	3 Reels
Microfiche/Microprint	8 Cards
Recording/Videodisc	5 Items
Pamphlet	8 Pieces
Videocassettes	1 Cassette
Film	1 Reel
Maps	8 Maps

Other non-book items should be estimated using the guidelines for the type material they most closely resemble.

3. Reader/Study Stations

The appropriate percentage of the student FTE to be accommodated with reader/study stations is to be determined by the institution up to a campus-wide maximum of 25 percent of FTE students for four-year colleges and universities and 20 percent of FTE students for community colleges. Libraries with specialized missions such as medical and law libraries are not subject to these maximums. The percentage of student FTE accommodated with reader/study stations is to be justified on the basis of program and/or educational level, characteristics of the users (user survey),

residential/commuter campus settings, material delivery systems, use of materials (use survey), alternative study areas.

The guideline for assignable square feet per station is

- 25 ASF for regular stations.
- 30 ASF for stations equipped for electronic use.

The percentage of reader stations designated as electronic carrels is determined by institution and justified on the basis of collection mix of book and non-book materials, and the academic program goals for the planning period, as outlined in the institution's library collection development policy.

4. Service (Including Space For Library Staff)

Service space at the master planning level includes both library staff office space and public service space.

Large libraries (total stack and reader space of 40,000 ASF or greater)

- 25 percent of the first 40,000 ASF of stack and reader space.
- 19 percent of stack and reader space above 40,000 ASF.

Small libraries (total stack and reader space of less than 40,000 ASF)

- 25 percent of stack and reader space.

5. Specialized Library Space

a. Media Services

Specific space guidelines have not been developed for media services due to the wide variety of services and facilities offered at institutions. The requirements for the service at the specific institution and the amount of space necessary to carry out these required functions are to be justified by the curriculum, staff, faculty and student use, number of patrons, types of services, types of materials, and the extent of the services to be provided at various locations on the campus.

b. Special Library Collection Space

CCHE space utilization criteria for collection space are applicable to additional library space for government document depositories, special collections, archives and non-traditional materials such as art works.

c. Other Academic Space

Other types of academic space such as classrooms, library teaching laboratories, computer rooms and conference rooms are to be consistent with CCHE space utilization criteria for academic space as applicable.

d. Other Space

No specific criteria have been developed for other types of space located within the library that are indirectly related to academic functions, such as museum, gallery and community or public activity space. Additional space must be justified separately, based on the space necessary to accommodate that function both campus-wide and within the library facility.

B. Library Space Criteria for Use in Program Planning

At the program planning level, detailed guidelines have been developed for (1) collection size, (2) collection storage, (3) reader stations, (4) staff offices, (5) service space and (6) specialized library space.

1. Collection Size

The size of the institution's library collection is based upon the size of the existing collection plus the institution's planned acquisitions. The net annual acquisition rate (annual purchases reduced by weeding and deselection) is limited to an amount justifiable by historic trends, unless additional funding commitment is demonstrated by the governing board and the institution.

2. Collection Storage

Criteria for collection storage units are based upon the amount of materials which fill a six shelf storage unit at 80-86% capacity, with handicapped access, re-shelving areas and stack layout flexibility.

STACK UNIT ASSIGNABLE SQUARE FEET

Stack Unit	Unit	Assignable Sq Ft Per Stack Unit
<u>Single Faced Section</u>		
Books	125 Volumes	10.3
Documents/Pamphlets	15 Linear Ft.	10.3
Microfilm	400 Reels	10.3
Microfilm Cards	10,000 Cards	10.3
Newspapers (Display)	7 Titles	10.3
Periodical (Display)	15 Titles	15.4
Records	50 Records	10.3
Reference	75 Volumes	15.4
<u>Cases</u>		
Map Cases	1,000 Maps	42
Microfilm Cases	400 Reels	11
Pamphlet	1,000 Items	11

3. Reader Stations

Criteria for the determination of the percentage of student FTE campus-wide to be accommodated with reader/study stations are included in the master planning criteria. The percentage is limited to a maximum of 20 percent for community colleges and 25 percent for four-year colleges and universities. Specialized libraries such as medical and law libraries are not subject to these maximum percentages.

The distribution of reader/study stations among the various types of stations is to be justified by the types of library materials being utilized and types of student study settings. Criteria for the assignable square feet per type of reader stations are as follows.

READER STATION ASSIGNABLE SQUARE FEET

Reader Station Type	ASF Per Station
Carrels	
Regular	25
Electronic	30
Computer	35
Research	40
CD-ROM	75
Enclosed Study	48
Reading Tables	18
(> 60 stations)	
Special Reading Rooms	23
(< 40 stations)	
Group Study Rooms	20
(< 20 stations)	
Casual Furniture	25

4. Staff and Office Space

Individual program planning criteria have been developed for office space and service space.

STAFF OFFICE AND CONFERENCE ROOM SPACE

Staff Title	ASF Per	
	Single Occupancy	Multiple Occupancy
<u>Office Space</u>		
Professional Staff		
Director	200	
Assistant Director	150	
Department Head	150	
Librarian	120	85
Support Staff	80	65
Student Assistant	60	50
Shared Workstation	As Justified	
<u>Special Services</u>		
Binding & Mending	250	
Photocopy	250	
Shipping/receiving	300	
Others	As Justified	

<u>Conference Space</u>	
Up To 20 Staff	20 ASF/Station Plus 30 ASF Service
21 - 30 Staff	18 ASF/Station Plus 30 ASF Service

5. Service Space

Service space is limited to 12 percent of the total collection storage, reader/study and staff space. This space includes the public catalog, display, supplies storage and general service areas such as reference, circulation, reserve, periodicals, etc.

The calculated service space need should be carefully tested against library service requirements by whatever means are useful including room layout sketches. These layouts, accompanied by proper supporting documents, will supersede these guidelines where the 9 percent limitation can be shown to be inappropriate.

6. Specialized Library Space

a. Media Services

Specific space guidelines have not been developed for media services due to the wide variety of services and facilities offered at institutions.

The requirements for the service at the specific institution and the amount of space necessary to carry out these required functions are to be justified by the curriculum, staff, faculty and student use, number of patrons, types of services, types of materials, and the extent of the services to be provided at various locations on the campus.

b. Special Library Collection Space

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c. Other Academic Space

Other types of academic space such as classrooms, library teaching laboratories, computer rooms, and conference rooms are to be consistent with CCHE space utilization criteria for academic space as applicable.

d. Other Space

No specific criteria have been developed for other types of space located within the library that are indirectly related to academic functions, such as museum, gallery and community or public activity space. Additional space must be justified separately, based on the space necessary to accommodate that function both campus-wide and within the library facility.

13.00 Open Access Computer Space

Included in this category is computer-equipped space for unscheduled, general use by students. Open access computer use is not required to complete academic coursework. These computers provide an alternative means of completing coursework and a supplement to learning activities.

The number of stations to be provided campus-wide must be justified by analysis of existing computer needs and resources. The analysis is to include information of needs by computer type (main frame, personal computer), user type (faculty, student/residential, off-campus), campus location (including library student stations), and academic discipline. Any under-utilized instructional computer space which provides opportunities for meeting open access needs should be identified.

Growth in open access computer space is limited to a level which can be justified by past trends (at least five years), unless an academic discipline-specific user survey has been conducted to establish the quantity of additional computers needed. The content of a computer user survey varies by project, but may include such elements as: user characteristics and preferences, access to computers outside the institution (user-owned, employer-provided, off-campus library), and type of usage (data analysis, word processing, etc.). Consult with CCHE regarding the scope of the computer user survey for specific projects.

Open access computer work stations should be available 80 hours per week (day, evening and weekend), and utilized 66 percent of the time, or 53 hours. A guideline of 30 ASF per student station (25 ASF per student station plus 5 ASF service space) should be followed.

The above guidelines apply to non-scheduled, open access, general computer rooms only. Utilization guidelines for computer equipped rooms used for instructional purposes are included in sections 5.00 (Computer-Aided Classrooms), 6.00 (Instructional Computer Laboratories), 8.00 (Computerized Self-Paced Instruction) and 19.00 (Library Study Stations).

14.00 Student Residential Facilities

No general guideline available.

15.00 Food Services Operations

No general guideline available.

16.00 Student Service Facilities

The general guideline of 9.75 ASF per student (head count) would apply only in the absence of student center facilities. Should student center facilities be available, the service areas outside the student center could be scaled down to about 1.5 ASF per student. The planning criterion for the allocation of space per student in student center facilities will vary widely since it is largely dependent upon the character and extent of the individual space or activity components that are included.

17.00 Building Efficiency Factors (New Construction)

In order to convert assignable square feet (ASF) for all major building types into gross square feet (GSF) the following ratios are considered appropriate. It is recognized that ratios are somewhat dependent upon such influencing elements as building size and definitive statements of functions to be housed. The following factors are guidelines considered to be achievable for more or less normal building configurations. The ratio of ASF to GSF is expressed as a percent and indicates the efficiency of the building. By dividing the ASF computed for a particular building by the ratio for that building type, the GSF required can be determined.

Building Type	Ratio: ASF to GSF
Office Building	68%
Classroom Building	68%
Classroom/Office Building	68%
HPER Building with gymnasium, classrooms, and service space	85%
HPER Building with gymnasium, classrooms, service space, swimming pool, and handball courts	80%
Hospital or Infirmary	63%
Engineering Building	68%
Instructional Shop Building	80%
Library Building	75%
Fine Arts Building	72%
Science Building	68%
Physical Plant Service Building	90%
Student Union	75%
Dormitory	65%
Apartment Building	75 - 90%